

Day/Night Smoke Detector Camera with DVR User Manual

Product: COVSM DVR



Please read this manual before installing and using this camera and always follow instructions for proper use.
Save this manual for future reference.

PRECAUTIONS

Precautions

- **Do not install the camera where the temperature or humidity is not within the specified operating range.**
- **Do not install the camera under unstable lighting.**
- **Do not use the camera close to an gas or oil leak.**
- **Do not disassemble the camera.**
- **Do not drop the camera; protect it from strong shock.**
- **Never point the camera directly at intense light.**
- **Do not expose the camera to rain or spill beverage on it.**

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NOTES

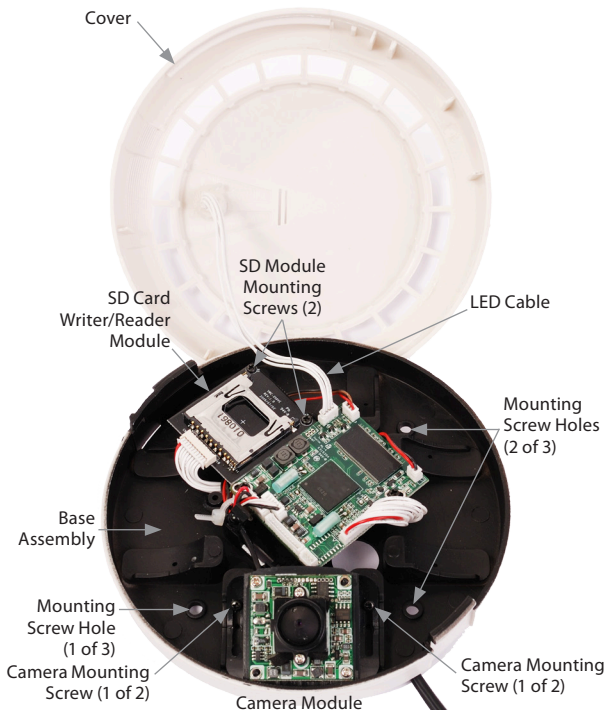
SECTION 1 Features

- Covert camera
- 600 lines resolution
- 0.5 lux low light rating
- 12 VDC powering
- AVI digital video recorder (DVR) with SD card storage
- Remote control



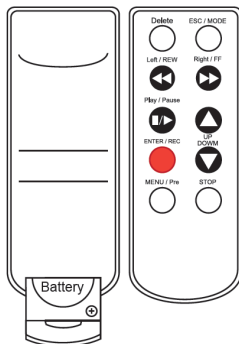
NOTE: This device does not directly detect smoke.

SECTION 1: FEATURES



COVSMDVR with cover removed

Remote Control



Delete

Press to delete the file selected in the recordings list.

ESC / MODE

Press to return to the previous menu, and quick playback.

Left / REW

Press to move left in the **mask area**, and 4 levels of fast backward playback.

Right / FF

Press to move right in the **mask area**, and 4 levels of fast forward playback.

Play / Pause

Press to play or pause playback.

UP and DOWN

Press to select an item and to increase or decrease the volume during the playback.

ENTER / REC

Press to confirm, and start recording.

MENU / Pre

Press to enter and exit a menu.

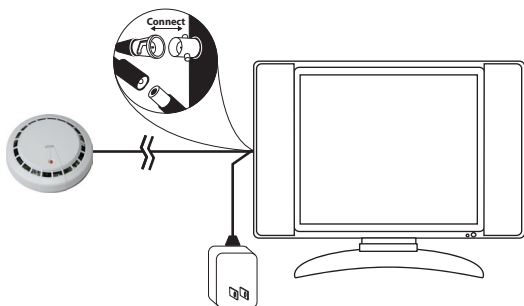
STOP

Press to stop recording.

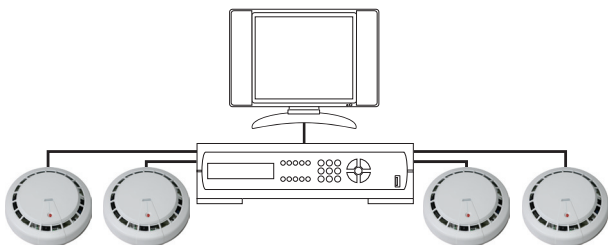
1.1 System options

The camera can connect directly to a CCTV monitor or to a DVR.

SECTION 1: FEATURES



Single camera/DVR network with monitor



Multiple camera/DVR network with system DVR and monitor

SECTION 2 **Installation**

2.1 **What's in the box**

The camera package contains:

- Camera/DVR assembly
- Mounting screws and wall anchors
- Remote control
- User manual (this document)

2.2 **What you need**

To install the camera, you will need:

- Hardware and tools to attach the camera to the mounting surface
- Video and power extension cable
- 12 VDC power adapter with 200 mA capacity

2.3 **Installing the camera**

1. Separate the COVSMDVR cover from the base. Rotate the cover about 1/8 turn counterclockwise, then carefully lift it off the base. **CAUTION:** After separating the cover from the base, it is still connected by the LED cable. Carefully unplug the LED cable from the base assembly, then set the cover aside.

SECTION 2: INSTALLATION

2. Position the camera base assembly in the mounting location with the camera lens pointing at your surveillance target. Mark the location of the holes for the mounting screws and drop cable.

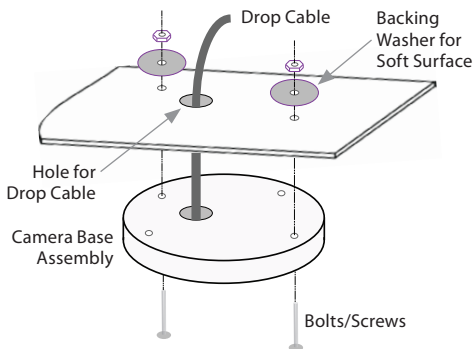
NOTE

One mounting screw hole is covered by the SD card module. If necessary, remove the two screws that secure SD module, then mark the location of the mounting screw hole.

3. Obtain the best fasteners for securing the camera to the mounting surface.

NOTE

Four screws and anchors, appropriate for many surface types, are provided with the camera. Soft surfaces, such as acoustic ceiling tile, require bolts with backing washers. See the drawing below.

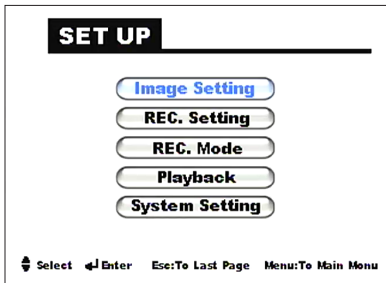


4. Drill holes into the mounting surface for the fasteners you will use.
5. Drill a $\frac{3}{4}$ " hole through the mounting surface for the camera drop cable.
6. Route the drop cable through the $\frac{3}{4}$ " hole, then secure the camera base assembly to the surface with the fasteners.
7. Attach a video/power extension cable to the camera drop cable, then attach the other end to a power 12 VDC (200 mA) power adapter and to a video monitor or DVR.
8. Power on the camera.
9. Loosen (do not remove) the camera mounting screws. While observing video from the camera, move the camera module to produce the best view of your surveillance target.
10. Carefully tighten the camera mounting screws to hold the camera in place.
11. Before reattaching the cover, complete the DVR setup procedures in Section 3 of this manual.

SECTION 3 DVR Setup and Usage

The DVR control interface appears as an OSD with a SET UP menu that includes:

- Image Settings
- Record Settings
- Record Modess
- Playback
- System Settings



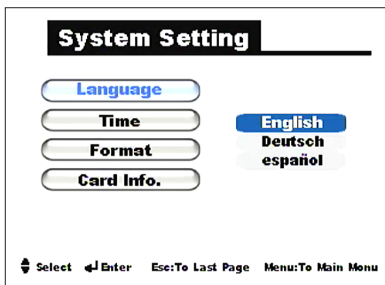
The remote control provided with your camera is used to control DVR. Before using the remote control, you may need to install the battery (CR2025) or remove the pull tab.

3.1 Initial DVR setup for recording

To setup your DVR for recording video, configure the system settings, image settings and record settings, then choose a record mode.

System Setting

1. Insert an SD, MMC, or SDHC card (up to 32GB) into the card slot on the back of the camera. See the Specifications section of this manual for more information.
2. While observing the video image from the camera, point the remote control at the front of the camera and press the **MENU** button. The **SET UP** will appear.
3. Press the **UP** button to highlight **System Setting**, then press **ENTER**.

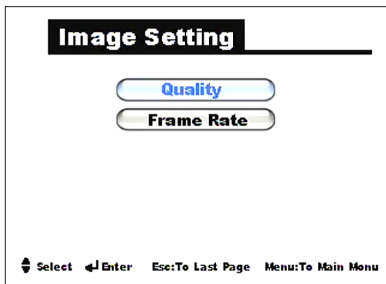


SECTION 3: DVR SETUP AND USAGE

4. In the System Setting menu, use the **UP** or **DOWN** button to highlight **Language**, then press **ENTER**. Highlight the screen language you prefer, then press **ENTER** again. Options: English, German, Spanish.
5. Use the **UP** or **DOWN** button to highlight **Time**, then press **ENTER**. In the Time screen, use the **UP** and **DOWN** buttons to change the value of the year, if necessary, then press the **Right** button to move to the next field (month). Adjust the value in each field until the current date and time is displayed, then press **ENTER** to confirm the setting and return to the **System Setting** screen.
6. Use the **UP** or **DOWN** button to highlight **Card Info.**, then press **ENTER**. Verify that the information displayed for the memory card is correct, then press **ENTER**.
7. Format your memory card. Use the **UP** or **DOWN** button to highlight **Format**, then press **ENTER**. Press the **UP** button to select **YES**, then press **ENTER** again. Allow the format operation to complete before continuing.

Image Setting

1. If not at the **SET UP** menu screen, press the **ESC** button repeatedly until the **SET UP** screen appears.
2. Use the **UP** or **DOWN** button to highlight **Image Setting**, then press **ENTER**.

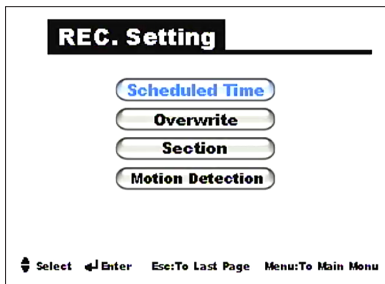


3. Use the **UP** or **DOWN** button to highlight (recording) **Quality**, then press **ENTER**. In the Quality submenu, use the **UP** or **DOWN** button to highlight **H** (high), **M** (medium), or **L** (low), then press **ENTER** again. (**NOTE:** Refer to the Specifications section for information on how these settings affect recording capacity.)
4. Press the **DOWN** button to highlight (recording) **Frame Rate**, then press **ENTER**. In the Frame Rate submenu, use the **UP** or **DOWN** button to highlight **30 fps**, **15 fps**, or **5 fps**, then press **ENTER** again.
5. Press **ESC** to return to the **SET UP** menu.

REC. Setting

1. In the **SET UP** menu screen, press the **UP** or **DOWN** button to highlight **REC. Setting**, then press **ENTER**.

SECTION 3: DVR SETUP AND USAGE

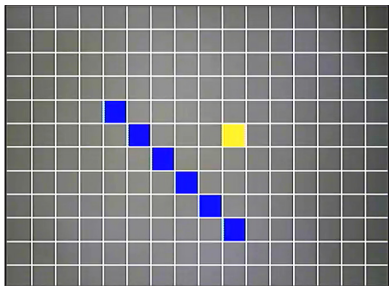


2. To setup a schedule for recording video, use the **UP** and **DOWN** buttons to highlight **Scheduled Time**, then press **ENTER**. In the Scheduled Time screen, the recording start time is displayed at the top in the format YYYY/MM/DD HH:MM; the end time is displayed below. Use the **UP** and **DOWN** buttons to change the value of the year, if necessary, the press the **Right** button to move to the next field. Adjust the value of each field until the desired start time and end time is displayed, then press **ENTER** to confirm the setting and return to the **REC. Setting** screen.
3. To set the media overwrite option, press the **DOWN** button to highlight **Overwrite**, then press **ENTER**. If enabling the overwrite option, the DVR will write over old data to save newer data after the memory card becomes full. In the Overwrite submenu, select **Yes** (to overwrite old data) or **No**, then press **ENTER** to close the submenu.
4. To set the Section value, press the **DOWN** button to highlight **Section**, then press **ENTER**. The Section feature allows you to set the maximum size of recorded files

SECTION 3: DVR SETUP AND USAGE

by time length. In the **Section** submenu, select **15min**, **30min**, or **1hr**, then press **ENTER** to return to close the submenu.

5. To setup motion detection recording, press the **DOWN** button to highlight **Motion Detection**, then press **ENTER**.
 - a. Press **ENTER** again to open the **Mask Area** screen. The mask feature divides the video image into a grid of blocks, where each block area is selected to either sense for motion or be ignored. Blocks selected for motion detection are highlighted blue, and the cursor position is highlighted yellow. To select a block area or deselect a selected block area, use the **UP**, **DOWN**, **RIGHT**, and **LEFT** buttons to move the cursor to the block, then press **ENTER**. Use this method to define only the areas of the image where motion should be sensed. When finished, press **ESC** to return to the **Motion Detection** screen.



SECTION 3: DVR SETUP AND USAGE

- b. In the **Motion Detection** screen, press **DOWN** to highlight **Sensitivity**, then press **ENTER**. In the **Sensitivity** submenu, select **H** (high), **M** (medium), or **L** (low), then press **ENTER** to return to close the submenu. (**NOTE:** Try different Sensitivity settings to produce the best performance for your surveillance target.)
6. Press **ESC** twice to return to the **SET UP** menu, then press **REC** to initiate motion detection recording.

REC. Mode

1. In the **SET UP** menu screen, press the **DOWN** button to highlight **REC. Mode**, then press **ENTER**.
2. In the submenu, use the **UP** or **DOWN** button to highlight the method for triggering recording: **Manual**, **Scheduled**, or by **Motion Detection**, then press **ENTER**.
3. Press **MENU** to close the **SET UP** menu and return to a live view from the camera.

3.2 Reinstall the cover

To reinstall the cover:

1. Plug the LED cable into the mating connector in the base assembly. Note that this connector is keyed.
2. Place the cover onto the base assembly, aligning the side tabs of the base with the slots inside the cover.

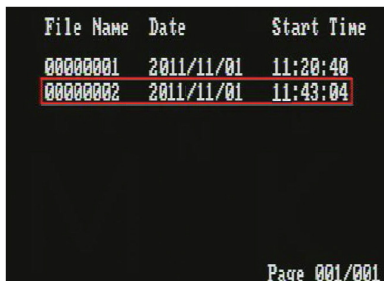
3. Rotate the cover about 1/8 turn clockwise until it locks into place.

3.3 Playing back recorded video

Video recorded by your camera can be played back either by the DVR or by an external device such as a computer.

Playback with the DVR

1. From the live camera view screen, press the **MENU** button to open the **SET UP** menu.
2. Press the **DOWN** button to highlight **Playback**, then press **ENTER**. The camera will read and display information from the files on the memory card.



File Name	Date	Start Time
00000001	2011/11/01	11:20:40
00000002	2011/11/01	11:43:04

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SECTION 3: DVR SETUP AND USAGE

3. In the file list screen, use the **UP** and **DOWN** buttons to select a file to play, press **ENTER** to confirm your selection, then press **PLAY** to watch the file. You can control playback as follows:
 - Press the **Left/REW** button to rewind the file. Press repeatedly to rewind faster.
 - Press **Right/FF** to fast forward. Press repeatedly to forward faster.
 - Press **Play/Pause** to pause and resume playback.
 - To delete a file from the list, use the **UP** and **DOWN** buttons to select a file, press **ENTER** to confirm your selection, then press **Delete**.
 - To exit playback mode and return to the camera live view , press **ESC**, then press **ENTER**.

Playback with a computer

To playback recorded video files on a computer, remove the memory card from the camera and connect it to a computer. Files recorded by the camera are AVI files with ASF format, which will play with Windows® Media Player, VLC Media Player (available as a free download from the internet), and other AVI video player software.

SECTION 4 Cleaning

Clean the camera housing with a mild cleaning solution and a lint free cloth.

- Remove all foreign particles, such as plastic or rubber materials, attached to the camera housing. These may cause damage to the surface over time.
- Dust can be removed from the unit by wiping it with a soft damp cloth. To remove stains, gently rub the surface with a soft cloth moistened with a mild detergent solution, then rinse and dry it with a soft cloth.



Do not use benzene, thinner or other chemical products on the camera assembly; these may dissolve the paint and promote damage of the surfaces. Before using any chemical product, read the accompanying instructions carefully.

SECTION 5: SPECIFICATIONS

SECTION 5 Specifications

Item	Specification		
Image sensor	1/3" CCD sensor		
Total pixels	768 (H) x 494 (V)		
Horizontal resolution	600 TV Lines		
Scanning system	2:1 interlace		
Sensitivity	0.5 LUX / F 2.0		
Lens type	Pinhole 3.7 mm		
S/N Ratio	> 48 dB		
Gamma correction	0.45		
Gain control	Auto		
Back light compensation	Auto		
Auto exposure	Auto		
White balance	ATW with MCT (Multi-Color Temperature) Technology		
D/N auto	Not supported		
Audio	None		
Video compression	MPEG4 (ASF format)		
Resolution for video	640 x 480		
Frame rate	5 / 15 / 30 FPS at 640 x 480		
Image quality mode	High	Middle	Low
Recording size / 1 hr	1.3 ~ 1 GB	900 ~ 700 MB	700 ~ 500 MB
Video modes	Manual, Scheduled, and Motion Detection		
Playback mode	Search by time		
Rewrite	Auto or off		
Storage media	SD / MMC card (SDHC up to 32 GB)		
Operating Temperature	14°F ~ 113°F (-10°C ~ 45°C)		
Power Supply	12 VDC		

SECTION 5: SPECIFICATIONS

Item	Specification
Power Consumption	200 mA \pm 10% @ 12 VDC
Dimensions (L x W x H)	5.59" (dia.) x 1.63" (H) (142 mm (dia.) x 41.5 mm (H))
Weight	5.33 oz \pm 0.11 oz (151 g \pm 3 g)

APPENDIX A **Troubleshooting**

Before sending the camera for repair, please follow the suggestions listed below and make sure that the camera is installed correctly. If it still does not perform adequately, please consult your supplier or contact your vendor.

1. No picture on the monitor screen.
 - a. Check that all connected devices are powered on.
 - b. Confirm that the voltage is correct.
 - c. Confirm that the power supply provides enough current to power the camera.
 - d. Check that all video cables are correctly connected.
2. The picture is not clear.
 - a. Check that your monitor is correctly adjusted.
 - b. Confirm that the lens is not covered with dust, dirt, etc. To clean the glass use a soft, dry and non-abrasive cloth or a commercially available lens cleaning set.
3. The picture has interference.
 - a. The camera may be close to a high voltage source, such as a power generator.
 - b. The BNC cable may not be terminated properly.
 - c. Video cables are not connected properly.



This camera is a precision instrument and when treated with care, will provide years of satisfactory performance. If a problem does occur, do not attempt to make repairs. Servicing should always be referred to your supplier.